

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: **Henri ROSSET**

Art Unit: **3725**

Application Number: **10/575,367**

Examiner: **Kyle R. Grabowski**

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For: **MULTI-LAYER SECURITY PAPER**

Attorney Docket Number: **062402**
Customer Number: **38834**

DECLARATION UNDER 37 C.F.R. §1.132

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450


Sir:

I, Dr. Philippe Dietemann, a citizen of FRANCE, hereby declare and state unequivocally:

1. I received an Engineering degree in paper technology from the International School of Paper, Print media and Biomaterials (EPPG), Grenoble, France in 2002, and a PhD in Process Engineering from Grenoble Institute of Technology, Grenoble, France, in 2005.

2. I have been employed as researcher by Arjo Wiggins Security for 5 years.


3. I am familiar with the invention, this application, and the documents cited in this application and discussed in this Declaration.

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4. From my review of U.S. Patent No. 5,565,276 (Murakami), this document teaches the use of authentication elements of different types, but these different authentication elements are all in a single layer (cf. Fig. 1 and col. 3, line 62 to col. 4, line 14). As a person of the art myself, I do not think that a person of ordinary skill in the art would be made aware by Murakami of any reason for changing Murakami's way of combining different authentication elements in the same layer. I note in particular that Murakami explains that the different authentication elements are "recognized independently" (cf. col. 4, line 4). This comment by Murakami indicates to the person of the art that combining authentication elements of different types in a same layer is not expected to pose any problem in terms of their respective recognition (authentication) procedures.

5. I have noticed that Murakami also mentions « other anti-falsification means, such as watermarking, mixing with dyed fibers, inclusion of security threads, and so forth" (cf. col. 7, lines 10-14). From my understanding of Murakami, this very general sentence is not an indication that dyed fibers should be segregated in any specific layer. I believe that the person of the art would read this sentence in conjunction with the passage at col. 3, line 62 to col. 4, line 14 discussed above. When one reads these passages of Murakami together, it is clear that the person of ordinary skill in the art would have applied the practice of Murakami so that dyed fibers should be present in the same layer like the nacreous fragments. Murakami does not provide a reason why the dyed fibers would not be "recognized independently" when they are included in the same layer as the nacreous fragments which are already of various types.

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6. Also, from my review of U.S. Patent No. 5,161,829 (Detrick), I do not think that this patent would inspire a person of the art to modify Murakami, because Detrick does not discuss authentication features, especially not those of the fiber/particle/planchette type. From the point of view of a person of the art concerned with the placement of these authentication features, Detrick is too general to be relevant, because it does not indicate any specific reason to modify a security paper in any particular manner.

7. Regarding watermarking and security threads mentioned at col. 7 of Murakami, these security features are very different from authentication fibers and particles, especially planchettes. While watermarking and security threads are implemented into the paper during the sheet formation on the forming device, authentication fibers and particles are usually introduced straight in the fiber suspension prior to the sheet formation. Also, authentication fibers and particles are usually of a size close to the size of the cellulose fibers and thus much smaller than the watermarking or the security threads. Consequently I see no reason why a person of the art would relate these authentication features (watermarking and security threads) to features of a completely different type (authentication fibers and particles) based on Murakami.


8. By the way, as far as watermarks are concerned, it is clear to me that a person of the art would not consider U.S. Patent No. 5,161,829 (Detrick) useful in order to modify the paper of

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U.S. Patent No. 6,402,888 (Doublet et al.). Detrick does not provide any particular indication or objective relative to watermarks and their detection in the presence of reinforcing fibers. I note that Detrick mentions "wet strength enhancers" at col. 4, lines 11-12 but these are resins intended to supplement or replace the fiber bonds when the paper is wetted with water. Wet strength enhancers function differently and are most often added in different circumstances and for different purposes than reinforcing fibers. Reinforcing fibers are included in a fiber layer to increase the mechanical strength within the fiber structure, especially the dry mechanical strength. The person of ordinary skill in the art would not consider that teachings regarding wet strength enhancer resins could be replicated or are even useful to address issues related to the use of reinforcing fibers.

9. More generally, when a person of the art considers the composition of fiber blends used for manufacturing multiply paper, it is basic knowledge that a paper made with two plies from the same fiber blend will be easier and cheaper to produce, because the two plies can be obtained from a same supply chest. Also, without even mentioning the production process, using a same fiber blend will produce a homogeneously resistant paper, which is a desirable objective per se when there is no countervailing reason to proceed differently. In sum, if the objective is to reinforce a paper, the most effective manner of adding reinforcing fibers is to have the reinforcing fibers in each layer of a multiply paper, because this would be simpler (and thus,

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cheaper) to manufacture as discussed above, and also because this would be expected to maximize the paper resistance.

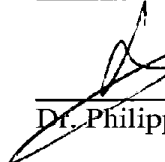
10. From my knowledge and experience, before the present invention, the person of ordinary skill in the art would not have had any reason to depart from this practice without being given a clear objective or instruction to do so, because it would have increased complexity and cost, as well as potential loss of strength in the fiber structure and a lack of homogeneity, without any expected benefit.

The undersigned declares that all statements made herein of his/her own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code and that willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date:

01/12/2010

Signature:


Dr. Philippe Dietemann